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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,440	01/23/2002	Yoji Ito	030662-081	1948

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Platon N. Mandros
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER

HON, SOW FUN

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 07/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,440

Applicant(s)

ITO, YOJI

Examiner

Sow-Fun Hon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/07/05 has been entered.

Response to Amendment

Rejections Withdrawn

2. The 35 U.S.C. 103(a) rejections of claims 5-8,10,14-15 are withdrawn due to cancellation of said claims by Applicant in the amendment dated 12/15/05.
3. The 35 U.S.C. 103(a) rejections of claims 9, 11-13, dated 09/15/05, are withdrawn due to Applicant's submission of the English translation of the foreign priority document dated 12/15/05. Applicant has fulfilled the requirements of 35 U.S.C. 119.

New Rejections

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

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1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 9, 11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,476,892 in view of US 6,262,788.

Conflicting claim 1 of '892, recites an optical compensatory sheet comprising a cellulose acetate film which has a retardation value in plane (R_e) of 20 to 70 nm which overlaps the claimed range of 0 to 50 nm and a retardation value along a thickness direction (R_{th}) in the range of 70 to 400 nm, and wherein the cellulose acetate film comprises an acetic acid content in the 59.0 to 61.5 %, and contains an aromatic compound having at least two aromatic rings in an amount of 0.01 to 20 weight parts based on 100 weight parts of cellulose acetate. The cellulose acetate film is a transparent support as defined by examined claim 1.

Conflicting claim 1 of '892 fails to recite an optically anisotropic layer formed from liquid crystal molecules and monomers having four or more double bonds, said monomers being polymerized to form a crosslinked polymer in the optically anisotropic layer.

'788 teaches an optical compensatory sheet (retardation film) comprising an optically anisotropic layer formed from liquid crystal molecules (column 1, lines 4-15)

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and monomers having four or more double bonds (pentaerythritoltetraacrylate) wherein said monomers are polymerized to form a crosslinked polymer (increase in crosslinking of the polymer) in the optically anisotropic layer (column 16, lines 40-51). '788 teaches that the liquid crystal molecules are coated on an optically anisotropic (birefringent) cellulose acetate support (film) (column 10, lines 43-56), wherein the oriented liquid crystal molecules forming the anisotropic layer provide the optical compensation for the deterioration of the optical properties of the liquid crystal display at large viewing angles (column 1, lines 60-68). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have claimed an optical compensatory sheet comprising an optically anisotropic layer formed from liquid crystal molecules and monomers having four or more double bonds, said monomers being polymerized to form a crosslinked polymer in the optically anisotropic layer ontop of the optically anisotropic cellulose acetate substrate claimed by '892, in order to obtain the desired optical compensation for a liquid crystal display at large viewing angles, as taught by '788.

6. Claims 12-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,476,892 in view of US 6,262,788, as applied to claims 9, 11 above, and further in view of US 5,663,310.

Regarding examined claim 13, conflicting claim 1 of '892 in view of '788 fails to claim that the cellulose acetate film is formed by casting two or more cellulose acetate solutions simultaneously, or that it is formed from a solution of cellulose acetate in a

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solvent selected from an ether having 2 to 12 carbon atoms, a ketone having 3 to 12 carbon atoms or an ester having 2 to 12 carbons atoms.

'310 teaches a cellulose acetate film formed from a solution of cellulose acetate in a solvent selected from an ether having 3 to 12 carbon atoms which overlaps the claimed range of 2 to 12 carbon atoms, a ketone having 4 to 12 carbon atoms which overlaps the claimed range of 3 to 12 carbon atoms or an ester having 3 to 12 carbon atoms which overlaps the claimed range of 2 to 12 carbon atoms (abstract), wherein the cellulose acetate has an acetic acid content of from 58.0 to 62.5% (column 29, lines 40-50) which encompasses the claimed range of 59.0 to 61.5%.

Therefore, because '310 teaches the same cellulose acetate material which requires the same solvents for film formation, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a solvent selected from an ether having 2 to 12 carbon atoms, a ketone having 3 to 12 carbon atoms or an ester having 2 to 12 carbons atoms, as taught by '310, in order to form the cellulose acetate film claimed by '892.

Regarding examined claim 12, while '310 fails to teach that the cellulose acetate film is formed by casting two or more cellulose acetate solutions simultaneously, this allows the formation of a thicker film, and therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have formed the film claimed by '892, by casting two or more cellulose acetate solutions simultaneously, in order to obtain a thicker film.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanrahan (US 6,262,788) in view of Okazaki (US 5,747,121), as evidenced by Shimoda (US 5,663,310).

Hanrahan teaches an optical compensatory sheet (retardation film) comprising an optically anisotropic layer formed from liquid crystal molecules (column 1, lines 4-15) and monomers having four or more double bonds (pentaerythritoltetraacrylate) wherein said monomers are polymerized to form a crosslinked polymer (increase in crosslinking of the polymer) in the optically anisotropic layer (column 16, lines 40-51). The liquid crystal molecules are coated on an optically anisotropic (birefringent) cellulose acetate support (film) (column 10, lines 43-56), wherein the oriented liquid crystal molecules forming the anisotropic layer provide the optical compensation for the deterioration of the optical properties of the liquid crystal display at large viewing angles (column 1, lines 60-68).

Hanrahan teaches that the cellulose acetate is triacetyl cellulose (column 10, lines 45-50), which has an acetic acid content of 58 % or more, overlapping the claimed range of 59.0 to 61.5 %, as evidenced by Shimoda.

Shimoda teaches that triacetyl cellulose has an acetic acid content of 58 % or more (column 1, lines 25 to 35).

Hanrahan fails to disclose that the optically anisotropic transparent cellulose acetate film support has a retardation value in plane in the range of 0 to 50 nm and a retardation value along a thickness direction in the range of 70 to 400 nm.

Okazaki teaches an optical compensatory sheet comprising a transparent support and an optically anisotropic layer (abstract), that the transparent support formed from triacetyl cellulose having a small anisotropy (birefringence)(column 7, lines 12-25), and has a retardation value in plane ($|n_x - n_y|.d$) of not more than 50 nm (column 7, lines 50-55), which overlaps the claimed range of 0 to 50 nm, and a retardation value along a thickness direction ($[(n_x + n_y)/2 - n_z].d$) in the range of 30 to less than 150 nm (column 7, lines 40-45), which overlaps the claimed range of 70 to 400 nm. Okazaki teaches that the optical compensatory sheet enlarges the viewing angle (column 3, lines 25-30).

Therefore, because Okazaki teaches that the viewing angle is enlarged by the optical compensatory sheet, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used the transparent cellulose acetate support with specific retardation value in plane in the range of 0 to 50 nm and specific retardation value along a thickness direction in the range of 70 to 400 nm, of Okazaki, as the transparent cellulose acetate support of Hanrahan, in order to provide the desired optical compensation for the deterioration of the optical properties of the liquid crystal display at large viewing angles.

9. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanrahan in view of Okazaki as applied to claim 9 above, and further in view of Shimoda.

Hanrahan in view of Okazaki, teaches an optical compensatory sheet comprising a transparent support which is a cellulose acetate film, specifically a triacetyl cellulose as described above, but fails to teach the cellulose acetate film is formed by casting two or more cellulose acetate solutions simultaneously, or that it is formed from a solution of cellulose acetate in a solvent selected from an ether having 2 to 12 carbon atoms, a ketone having 3 to 12 carbon atoms or an ester having 2 to 12 carbons atoms.

Shimoda teaches a cellulose acetate film formed from a solution of cellulose acetate in a solvent selected from an ether having 3 to 12 carbon atoms which overlaps the claimed range of 2 to 12 carbon atoms, a ketone having 4 to 12 carbon atoms which overlaps the claimed range of 3 to 12 carbon atoms or an ester having 3 to 12 carbon atoms which overlaps the claimed range of 2 to 12 carbon atoms (abstract), wherein the cellulose acetate is a triacetyl cellulose which has an acetic acid content of greater than 58 % (column 1, lines 25-35), specifically from 58.0 to 62.5% (column 29, lines 20-25) which encompasses the claimed range of 59.0 to 61.5%. Shimoda teaches that the range of acetic acid content provides mechanical strength and durability such as elasticity, folding endurance, dimensional stability and resistance to moisture and heat (column 1, lines 20-30).

Therefore, because Shimoda teaches the same cellulose acetate material which requires the same solvents for film formation, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a solvent selected from an ether having 2 to 12 carbon atoms, a ketone having 3 to 12 carbon

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atoms or an ester having 2 to 12 carbons atoms, as taught by Shimoda, in order to form the cellulose acetate film of Hanrahan in view of Okazaki.

While Shimoda fails to teach that the cellulose acetate film is formed by casting two or more cellulose acetate solutions simultaneously, this allows the formation of a thicker film, and therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have formed the film of Hanrahan in view of Okazaki, by casting two or more cellulose acetate solutions simultaneously, in order to obtain a thicker film.

Response to Arguments

10. Applicant's arguments with respect to claims 9, 11-13 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

S. Hon

Sow-Fun Hon

07/07/05

Harold Pyon
HAROLD PYON
SUPERVISORY PATENT EXAMINER
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